



Water-Data Report 2006

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°40'41", long 74°55'05" referenced to North American Datum of 1983, Union Township, Hunterdon County, NJ, Hydrologic Unit 02030105, 800 ft downstream of Rocky Run, 0.3 mi upstream of bridge on Van Syckel Road, and 1.6 mi southeast of Glen Gardner.

DRAINAGE AREA.--15.3 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1979, 1981-83, 1985-93, 1995-97, 1999, and 2003 to current year.

GAGE.--None.

**DISCHARGE MEASUREMENTS
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Date	Discharge, in ft ³ /s
Nov 3, 2005	17.1
Feb 21, 2006	26.3
May 8, 2006	12.3
Aug 2, 2006	11.6

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1979-97, 2003 to current year.

REMARKS.--Total nitrogen (00600) equals the sum of filtered ammonia plus organic nitrogen (00623), filtered nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570).

COOPERATION.--Samples were collected in cooperation with the NJ Water Supply Authority. Determinations of ammonia+organic nitrogen and phosphorous in bed sediment were performed by the NJ Department of Health and Senior Services.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 1 of 5

[Remark codes: <, less than; E, estimated.]

Date	Time	Sample type	Turbdty white light, det ang 90+/-30 instantaneous dis-charge, corrctd NTRU (63676)	Turbdty white light, det ang 90+/-30 instantaneous dis-charge, corrctd NTRU (63676)	UV absorb- ance, 254 nm, wat flt units	UV absorb- ance, 280 nm, wat flt units	Baro- metric pres- sure, mm Hg	Dis- solved oxygen, mg/L (00025)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units	Specif. conduct- ance, wat unf uS/cm	Temper- ature, air, deg C (00020)
				/cm (50624)	/cm (61726)	/cm (00025)	(00300)	(00301)	(00400)	25 degC (00095)	(00020)	
Nov 03...	1030	Environmental	17	.5	.056	.044	757	12.2	104	7.5	200	15.0
Feb 21...	0840	Field Blank	--	--	--	--	--	--	--	--	--	--
21...	0930	Environmental	26	.7	.034	.026	754	15.6	111	7.4	200	.0
May 08...	1200	Environmental	12	2.6	.039	.031	760	11.0	105	7.8	206	18.0
Aug 02...	0850	Environmental	12	.7	.058	.043	752	8.7	102	7.5	220	--

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 2 of 5

[Remark codes: <, less than; E, estimated.]

Date	Temperature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃ (00900)	Calcium water, mg/L (00915)	Magnes- ium, water, mg/L (00925)	Potas- sium, water, mg/L (00935)	Sodium, water, mg/L (00930)	fixed end pt, mg/L as CaCO ₃ (90410)	Chlor- ide, lab, mg/L (00940)	Fluor- ide, water, mg/L (00950)	Silica, water, mg/L (00955)	Sulfate water, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue on evap. mg/L (70300)
		CaCO ₃ (00900)	mg/L (00915)	mg/L (00925)	mg/L (00935)	mg/L (00930)	mg/L (90410)	mg/L (00940)	mg/L (00950)	mg/L (00955)	mg/L (00945)	mg/L (70301)	180degC wat flt mg/L (70300)
Nov 03...	8.0	61	14.9	5.84	1.45	12.4	37	23.4	E.09	17.1	17.4	121	130
Feb 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	1.1	58	14.1	5.57	1.07	13.1	30	26.5	.11	15.5	15.6	116	121
May 08...	13.1	64	15.7	6.04	1.25	13.2	39	26.1	.12	15.6	16.2	122	133
Aug 02...	22.4	70	17.6	6.27	1.51	13.6	46	26.0	E.09	15.7	14.9	129	130

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 5

[Remark codes: <, less than; E, estimated.]

Date	Ammonia + org-N, water, filtrd, mg/L as N (00623)	Ammonia water, filtrd, mg/L as N (00608)	Nitrite + nitrate water, filtrd, mg/L as N (00631)	Nitrite water, filtrd, mg/L as N (00613)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Total nitro- gen, water, filtrd, mg/L (00602)	Total nitro- gen, water, unfiltrd mg/L (00600)	Ortho- phosphate, water, filtrd, mg/L as P (00671)	Phos- phorus, water, filtrd, mg/L (00666)	Phos- phorus, water, unfiltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)
Nov 03...	.15	<.040	1.35	<.008	<.02	1.5	--	E.004	.008	.007	.1	<.1	.1
Feb 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	E.10	<.040	1.50	<.008	<.02	--	--	<.006	E.004	.005	.1	<.1	<.1
May 08...	.14	<.040	1.06	<.008	<.02	1.2	--	E.005	.009	.013	.2	<.1	.2
Aug 02...	.18	<.040	1.25	E.002	.03	1.4	1.5	.013	.014	.017	.1	<.1	.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 5

[Remark codes: <, less than; E, estimated.]

Date	Organic carbon, water, filtrd, mg/L (00681)	Arsenic water, filtrd, ug/L (01000)	Arsenic water, unfiltrd ug/L (01002)	Barium, water, unfiltrd recover -able, ug/L (01007)	Beryll- ium, water, unfiltrd recover -able, ug/L (01012)	Boron, water, unfiltrd recover -able, ug/L (01020)	Boron, water, unfiltrd recover -able, ug/L (01022)	Cadmium water, unfiltrd recover -able, ug/L (01027)	Chrom- ium, water, unfiltrd recover -able, ug/L (01034)	Copper, water, unfiltrd recover -able, ug/L (01040)	Copper, water, unfiltrd recover -able, ug/L (01042)	Iron, water, unfiltrd recover -able, ug/L (01045)	Lead, water, filtrd, ug/L (01049)	
Nov 03...	1.8	--	--	--	--	11	--	--	--	--	--	--	--	--
Feb 21...	--	<.12	--	--	--	--	--	--	--	E.2	--	--	--	<.08
21...	1.1	E.09	.61	22.4	<.06	7.9	E7	<.04	.40	--	1.1	57	--	--
May 08...	1.3	--	--	--	--	8.4	--	--	--	--	--	--	--	--
Aug 02...	1.7	.13	.18	27.5	<.06	11	13	<.04	.23	--	1.6	67	--	--

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 5 of 5

[Remark codes: <, less than; E, estimated.]

Date	Mangan-			Mercury			Nickel,			Silver,			Zinc,		Sus-	Sus-
	Lead, water, unfltrd recover -able, ug/L (01051)	ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, unfltrd recover -able, ug/L (71890)	water, unfltrd recover -able, ug/L (71900)	Nickel, water, unfltrd recover -able, ug/L (01065)	water, unfltrd recover -able, ug/L (01067)	Selen- ium, unfltrd recover -able, ug/L (01147)	water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01090)	water, unfltrd recover -able, ug/L (01092)	Zinc, water, unfltrd recover -able, ug/L (80154)	sus- pended concen- tration mg/L (80154)	sus- pended sediment concen- tration tons/d (80155)			
Nov 03...	--	--	--	--	--	--	--	--	--	--	--	<.5	--			
Feb 21...	--	--	<.010	--	<.06	--	--	--	E.5	--	--	--	--			
21...	E.06	7.5	--	<.010	--	.36	.18	<.16	--	E2	1	.07				
May 08...	--	--	--	--	--	--	--	--	--	--	--	2	.07			
Aug 02...	.18	11.9	--	<.010	--	.98	.12	<.16	--	E2	1	.03				

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 4

[Remark codes: <, less than; E, estimated.]

Date	Time	Ammonia			Inor-			Chrom-			Lead, bed sedimnt recover		
		pH bed sedimnt std units (70310)	+ org-N, bed sed total, mg/kg (00626)	Phos- phorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inor- ganic carbon, bed sedimnt total, g/kg (00686)	Arsenic bed sedimnt recover -able, ug/g (64847)	Cadmium bed sedimnt recover -able, ug/g (01028)	Cobalt bed sedimnt recover -able, ug/g (01029)	Copper, bed sedimnt recover -able, ug/g (01038)	Iron, bed sedimnt total, ug/g (01170)		
Aug 02...	0850	7.02	120	2,100	.9	<.2	1.0	.070	16	5.2	16	12,000	8.9

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 4

[Remark codes: <, less than; E, estimated.]

Date	Mangan-			Sele-			1,2-Di-		1,6-Di-		1Methyl		1-		236Tri-		2,6-Di-		2-Ethyl	
	ese, bed sedimnt recover -able, ug/g (01053)	Mercury bed sedimnt recover -able, ug/g (71921)	Nickel, bed sedimnt recover -able, ug/g (01068)	Sele- nium, bed sedimnt recover -able, ug/g (64848)	Zinc, bed sedimnt recover -able, ug/g (01093)	methyl- naphth- alene, bed sed ug/kg (49403)	methyl- naphth- alene, bed sed ug/kg (49404)	1,2-Di- methyl- naphth- alene, bed sed ug/kg (49398)	1,6-Di- methyl- naphth- alene, bed sed ug/kg (49410)	1Methyl phenan- threne, bed sed ug/kg (49388)	1-	Methyl- pyrene, bed sed ug/kg (49405)	1-	Methyl- naphth- alene, bed sed ug/kg (49406)	236Tri- methyl- naphth- alene, bed sed ug/kg (49948)	2,6-Di- methyl- naphth- alene, bed sed ug/kg (49406)	2-Ethyl			
Aug 02...	160	<.007	8.0	.2	33	<51	<51	E4	E6	E18	<51	<51	<51	<51	<51					

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 4

[Remark codes: <, less than; E, estimated.]

Date	2-Methyl-anthra-cene, bed sed <2 mm, bs	4H-Cyclo-lopenta-fluor-ene, phenan-threne, <2 mm, <2 mm, bs	9H-Fluor-naphth-ene, bed sed	Ace-naphth-ylene, bed sed	Ace-naphth-ylene, bed sed	Antha-cene, <2 mm, wsv nat	Benz-o-[a]-anthra-cene, bed sed	Benz-o-[a]-pyrene, bed sed	Benz-o-[b]-fluor-anthene, bed sed	Benz-o-[b]-anthene, bed sed	Benz-o-[g,h]-peryl-ene, bed sed	Benz-o-[k]-fluor-anthene, bed sed	Chry-sene, field, <2 mm, wsv nat	Dibenzo-[a,h]-anthra-cene, bed sed
	ug/kg (49435)	ug/kg (49411)	ug/kg (49399)	ug/kg (49429)	ug/kg (49428)	ug/kg (49434)	ug/kg (49436)	ug/kg (49389)	ug/kg (49458)	ug/kg (49408)	ug/kg (49397)	ug/kg (49450)	ug/kg (49461)	

Aug 02...	E11	E6	E4	<51	E9	E14	E35	E42	E48	E37	E21	E27	E15
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WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 4

[Remark codes: <, less than; E, estimated.]

Date	Fluor-anthene, bed sed <2 mm, wsv nat	Indeno-[1,2,3-cd]pyrene, bed sed	Iso-phorone, bed sed	Naphth-alene, bed sed	p-PCBs, bed	Phenan-threne, Cresol, bed sed	Phenan-threne, bed sed	Pyrene, bed sed	Bed sediment,	Bed sediment,
	ug/kg (49466)	ug/kg (49390)	ug/kg (49400)	ug/kg (49402)	ug/kg (39519)	ug/kg (49451)	ug/kg (49409)	ug/kg (49393)	<.063mm (80164)	<.004mm (80157)

Aug 02...	60	E29	<51	<51	<5.00	<51	E26	<51	54	.1	<.1
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WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 5

[Remark codes: <, less than; E, estimated.]

Date	Time	2,4-D methyl ester, water, fltrd, ug/L	2,4-DB water, fltrd, ug/L	CIAT, water, fltrd, 0.7u GF	CEAT, water, fltrd, ug/L	OIET, water, fltrd, ug/L	Hydroxy furan, wat flt, 0.7u GF	Aci-fluor-fen, water, fltrd, ug/L	Aldi-carb sulfone, fltrd, wat flt, 0.7u GF	Aldi-carb sulf-oxide, wat flt, 0.7u GF	Aldi-carb water, fltrd, ug/L	Atra-zine, water, fltrd, ug/L
		(50470)	(39732)	(38746)	(04040)	(04038)	(50355)	(49308)	(49315)	(49313)	(49314)	(49312)

May 11...	0815	<.016	<.04	<.02	E.02	E.01	<.032	<.008	<.028	<.02	<.022	<.04	E.007
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01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 5

[Remark codes: <, less than; E, estimated.]

Date	Bendio-carb, water, fltrd, ug/L (50299)	Benomyl water, fltrd, ug/L (50300)	Bensulfuron-methyl, water, fltrd, ug/L (61693)	Ben-tazon, water, 0.7u GF (38711)	Bromo-cil, water, fltrd (04029)	Bromoxynil, water, 0.7u GF (49311)	Caf-feine, water, fltrd (50305)	Car-baryl, water, 0.7u GF (49310)	Carbo-furan, water, fltrd (49309)	Chlor-amben, methyl ester, water, fltrd, ug/L (61188)	Chlori-muron, water, fltrd, ug/L (50306)	Chloro-di-amino-s-tri- azine, water, ug/L (04039)	Clopyr-alid, water, fltrd, ug/L (49305)
May 11...	<.02	<.022	<.02	<.01	<.02	<.03	E.004	<.02	<.016	<.02	<.032	E.01	<.02

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 5

[Remark codes: <, less than; E, estimated.]

Date	Dacthal mono-acid, water, fltrd, 0.7u GF (04031)	Dicamba water, fltrd 0.7u GF (49304)	Di-chlor-prop, water, fltrd 0.7u GF (38442)	Dinoseb water, fltrd 0.7u GF (49302)	Diphen-amid, water, fltrd 0.7u GF (49301)	Diuron water, fltrd 0.7u GF (04033)	Fenuron water, fltrd 0.7u GF (49300)	Flumet-sulam, water, fltrd 0.7u GF (49297)	Fluometuron water, fltrd 0.7u GF (61694)	Imaza-quin, water, fltrd 0.7u GF (38811)	Imaze-thapyr, water, fltrd 0.7u GF (50356)	Imida-cloprid water, fltrd, ug/L (50407)	
May 11...	<.01	<.03	<.04	<.03	<.04	<.01	<.02	<.02	<.04	<.02	<.04	<.04	<.020

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 5

[Remark codes: <, less than; E, estimated.]

Date	Linuron water, fltrd 0.7u GF ug/L (38478)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd 0.7u GF ug/L (38501)	Meth-omyl, water, fltrd 0.7u GF ug/L (49296)	Metsul-furon, water, fltrd, ug/L (61697)	Chloro-phenyl)-N'-methyl-urea, water, fltrd, ug/L (61692)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nico-sul-furon, water, fltrd 0.7u GF ug/L (50364)	Norflur-azon, water, fltrd 0.7u GF ug/L (49293)	Ory-zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)
May 11...	<.01	<.03	<.01	<.01	<.010	<.020	<.07	<.04	<.01	<.04	<.02	<.01	<.03

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 5 of 5

[Remark codes: <, less than; E, estimated.]

Date	Pic-loram, water, 0.7u GF ug/L (49291)	Propham, water, 0.7u GF ug/L (49236)	Propiconazole, water, filtrd, 0.7u GF ug/L (50471)	Propoxur, water, filtrd, 0.7u GF ug/L (38538)	Siduron, water, filtrd, 0.7u GF ug/L (38548)	Sulfuron, water, filtrd, 0.7u GF ug/L (50337)	Tebu-thiuron, water, filtrd, 0.7u GF ug/L (82670)	Terbam-cil, water, filtrd, 0.7u GF ug/L (04032)	Tri-clopyr, water, filtrd, 0.7u GF ug/L (49235)
May									
11...	<.03	<.030	<.01	<.008	<.02	<.091	<.026	<.016	<.03